C1 Cont. information regarding routing the packet through a[the] network in its encoded form without decoding.

C2 (thrice amended) 25. An integrated circuit comprising: a route unit adapted to produce binary digital signals to be included in a packet of binary digital signals that after encoding includes a bit pattern chosen so that when the bit pattern is encoded it directly provides information regarding routing the packet through a[the] network in its encoded form without decoding.

REMARKS

The above-referenced patent application has been reviewed in light of the Office Action, dated February 1, 1999, in which: FIG. 3 is objected to; claims 1-27 are rejected under 35 USC Section 112, first paragraph; claims 22-27 are rejected under 35 USC Section 112, second paragraph; and claims 1-27 are rejected under 35 USC 103(a) as being unpatentable over Huang (USP 5,442,474) in view of Widmer et al. (article entitled "A DC-Balanced, Partitioned-Block, 8B/10B Transmission Code.") Consideration of the above-referenced application in view of the foregoing amendments and the following remarks is respectfully requested.

Claims 1-27 are now pending the above-referenced patent application. No claims have been cancelled or added. Claims 22 and 25 have been amended.

FIG. 3 has been amended. It is requested that this objection be withdrawn.

Claims 1-27 are rejected under 35 USC Section 112, first paragraph. Specifically, the Examiner states, "The specification fails to teach how the bit pattern is chosen so as it directly provides information regarding routing the packet through the network in its encoded form." This rejection by the Examiner is respectfully traversed.

Although the invention is not limited in scope to the embodiment disclosed in the specification, Applicants clearly discuss in the specification a technique for selecting a bit pattern. The details of how this might be accomplished in an embodiment, and a specific example, is provided on page 10, line 15, to page 11, line 13. As further mentioned on page 9, line

12-13, of the specification, more information regarding a particular encoding technique is described in "A DC-Balanced, Partition-Block, 8B/10B Transmission Code." In fact, on page 4 of the Office Action, the Examiner even admits: "8B/10B coding scheme is well known in the art for coding signals for transmission in a packet network."

It is well-established that the Examiner may only reject a claim under section 112 if it is reasonable to conclude that one skilled in the art would be unable to carry out the claimed invention. E.g., *In re Wright*, 999 F.2d 1557, 1561-62, 27 USPQ 2d 1510, 1513 (Fed. Cir. 1993). *Wright* also states that **the Examiner must provide a *reasonable explanation* as to why he believes that the scope of protection provided by that claim is not adequately enabled by the description of the invention provided in the specification.** With all due respect, the Examiner has not provided a reasonable explanation.

The Examiner only states that the specific information of how 8B/10B coding is employed to do this is not found in the specification. However, because the process of routing is well known to those skilled in the art, those skilled in the art would easily be able to carry out the invention from the information that is provided, and, therefore, it is not necessary to discuss the 8B/10B encoding process in detail in the specification.

As previously mentioned, a specific example of selecting a bit pattern is described in detail on page 10, to page 11. Furthermore, the specification indicates on page 10, lines 11-12, that in one embodiment the bit pattern may be chosen via a look-up table. Furthermore, as indicated above, the 8B/10B coding scheme is one specific technique for encoding the bit pattern that is mentioned; however, the example was not intended to limit the scope of the invention. **Therefore, it is clear that one of ordinary skill in the art would be able to take all possible routes through a network, encode them using the encoding technique cited, as just one example, and then, as described on page 10, to page 11, of the encoded bit patterns, select those for use that specify a route through the network without decoding.** Of course, the invention is not limited in scope to this example; however, it is clear that the specification is enabling as to this particular embodiment of the

invention, as well as a host of other possible embodiments. Therefore, it is respectfully requested that the Examiner withdraw this rejection.

Claims 22-27 are rejected under 35 USC Section 112, second paragraph. Specifically, Examiner states, "In claim 22, line 4, 'the network' lacks proper antecedent basis. Similarly, In claim 25, line 4, 'the network' lack the proper antecedent basis." Per Examiner's request, Applicants have amended claims 22 and 25 with the proper antecedent, and contend that the claims are now in condition for allowance. Because this amendment merely addresses formal matters, it is respectfully asserted that the amended claims are no narrower in scope after amendment and that no prosecution history estoppel applies.

Claims 23 and 24 rely on claim 22; therefore, because claim 22 is in condition for allowance, claims 23 and 24 are in condition for allowance as well. Likewise, claims 26 and 27 rely on claim 25; therefore, because claim 25 is in condition for allowance, claims 26 and 17 are in condition for allowance as well. Again, these claims are no narrower in scope after the amendment and no prosecution history applies. Applicant respectfully requests that Examiner allow these claims as amended.

Claims 1-27 are rejected under 35 USC 103(a) as being unpatentable over Huang in view of Widmer at al. (hereinafter, "Widmer"). This rejection by the Examiner is respectfully traversed.

It is noted that the Examiner admits that Huang "does not teach that [sic] an encoding scheme such that when the bit pattern is encoded, it directly provides information regarding routing the packet throught [sic] the network in its encoded form." However, despite this, the Examiner asserts that the claims are unpatentable. Specifically, the Examiner states: 'Widmer et al teaches an 8B/10B transmission coding scheme which adds two bits into an 8-bits [sic] input to obtain a 10-bit coding output. It si [sic] clear to one skilled in the art that the encoded 10 bit pattern directly provides information of the 8-bit input in its encoded form." On this basis, then, according to the Examiner, "it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Widmer's teaching of using 8B/10B transmission coding scheme in Huang's system with the motivation

being to improve transmission reliability by being able to detect transmission errors." In these assertions, the Examiner has made several errors.

First, Applicants assume, only for the sake of this argument, without conceding, that the Examiner has made an appropriate combination. In fact, the combination is not proper, as explained in more detail later. However, assuming for this argument, that the combination is proper, still, one of ordinary skill in the art having before him the two documents cited by the Examiner, would still be unable to produce the invention as described and recited, for example, in claim 1. **The Examiner's assertion that the 10-bit code output in its encoded form directly provides information of the 8-bit input is not correct. The process is not one in which two-bits are simply attached to the 8-bit input to obtain the 10-bit output.** For example, in table 6 of Widmer, the pattern having 5-bits and the pattern having 6-bits are not related in this way. **Thus, the Examiner is incorrect that one of ordinary skill in the art would have thought to use the encoded bit pattern to directly provide routing information, in contrast with decoding the pattern to obtain the routing information. The Examiner has conceded that Huang does not teach this, and he has not shown how it is that Widmer teaches this.** Therefore, even if one of ordinary skill in the art had both of these documents in front of him or her, he or she still would not have been able to produce the invention as described and claimed.

Furthermore, the Examiner is incorrect regarding the advantages that a particular embodiment might provide. The Examiner refers to improving transmission reliability by being able to detect transmission errors. The scope of the invention does not exclude the use of encoding where this might be an advantage, and, furthermore, the specification does describe the use of techniques in connection with the transmission of packets where this is the desired object. However, for the particular embodiment provided, as described on page 11, lines 4-7, advantages, instead, include omitting a decoder, reducing cost and complexity, and reducing latency. **Once again, this shows that one of ordinary skill in the art would not have been able to produce the claimed invention from the cited documents. Specifically, by the Examiner's own statement, he implies that one of ordinary**

skill in the art would be unable to obtain from the claimed invention the specific advantages mentioned in the specification.

In addition, it is respectfully asserted that one of ordinary skill in the art would not have made the proposed combination in the first instance. The Examiner asserts that the motivation to combine these documents is "to improve transmission reliability by being able to detect transmission errors." However, as indicated above, and explained in the specification, for example, on page 11, lines 4-7, this is not an advantage that flows from the specific embodiment of the invention described in the specification, even assuming, for the sake of this argument, that the combination would produce the claimed invention, which is not conceded. Applicants do not suggest that this might not be an advantage in an alternative embodiment; however, the Examiner has failed to show why this might be a motivation to combine in this situation.

Furthermore, the Examiner cannot on his own provide the motivation to combine. The Examiner must show that the cited documents themselves suggest or motivate the combination. Therefore, the Examiner must show that either expressly or inherently the cited documents provide the suggestion or motivation for the combination. Again, the Examiner has not pointed to anything in either of the cited documents that would provide the needed suggestion or motivation. Therefore, for all of the foregoing reasons, it is respectfully requested that the Examiner withdraw his rejection of claim 1.

Claims 2-9 depend from and include all of the limitations of claim 1. Therefore, it is respectfully asserted that these claims distinguish from the cited documents on the same basis as claim 1. It is requested that the rejection of these claims be withdrawn.

All of the remaining claims, claims 10-27, include limitations similar to those in claim 1. Therefore, all of these remaining claims distinguish from the cited documents on the same basis as claim 1. It is respectfully requested that the Examiner withdraw his rejection of these remaining claims.

CONCLUSION

In view of the foregoing, it is respectfully asserted that all claims pending in this application, as amended, are in condition for allowance. If the Examiner has any questions, he is invited to contact the undersigned at (503) 264-0967. Consideration of this patent application and early allowance of all the claims is respectfully requested.

Respectfully submitted,

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